



**GRADE FIVE  
STUDY  
OF**



**BONES AND SKELETONS**

**Alice B. Beal Magnet Expeditionary Learning School  
Springfield, MA  
Fall 2007**







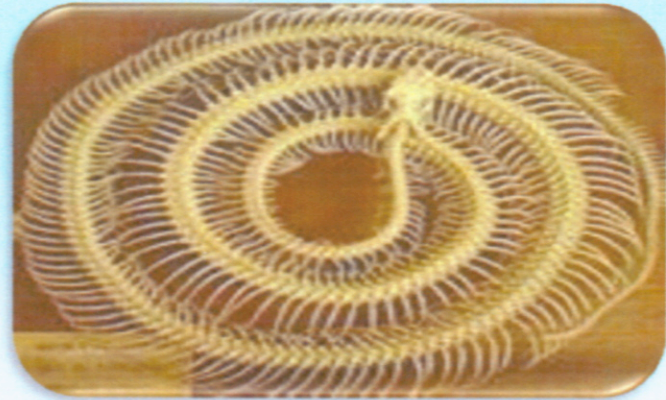


# BOA CONSTRICTOR

BY ANDREW & TAJOUR



A silent hunter that moves through jungles and rainforests in Central and South America is the boa constrictor. This snake also lives in savannas which are dry places.



The boa constrictor's skull can open really wide because the jaws of the boa can unhinge to swallow its prey whole. The teeth of the boa constrictor are like needles so when it bites its prey it pierces and punctures the animal. There is an organ called the Jacobson's organ in the boa's mouth on the tongue. It uses its tongue to gather information and smells around it. The Jacobson's organ alerts the boa if an enemy or prey is near.

The vertebral column and ribcage of the boa constrictor is strong and flexible. There are muscles attached between each pair of ribs. The muscles are really strong for strangling the prey. These muscles hold the prey still so the boa can eat it. It eats wild pigs, monkeys, rats, iguanas, squirrels, and rabbits. The ribcage also lets the boa coil and bend in all directions. The boa coils to rest or to warm up its eggs.

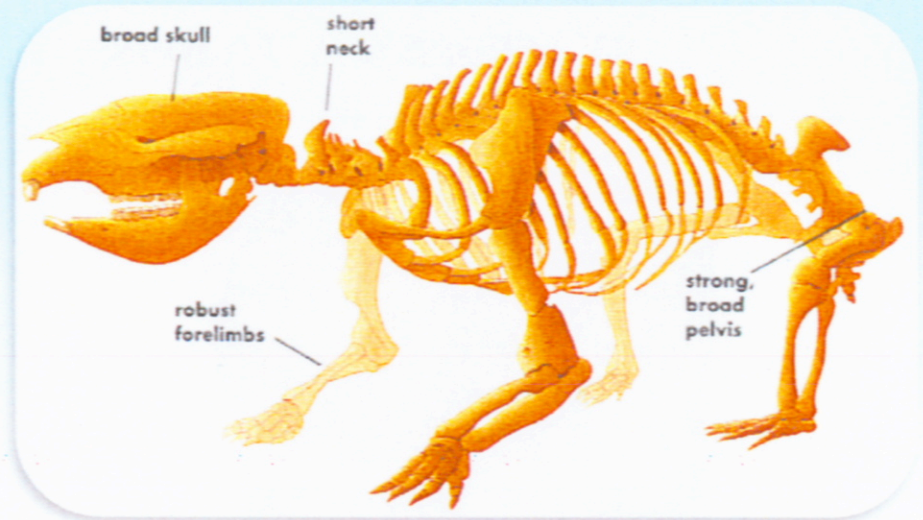
<http://tazewell.k12.il.us/dist102/Dist/Resources/Image5.jpg> November 27, 2007

<http://www.aquazone.be/elevage/20.jpg> November 27, 2007



# WOMBAT

by Serali and Siannah



Small bears, relatives to the koala, a marsupial? What is this unusual animal? It's a wombat! These unusual animals are found in forests in Eastern Australia, Flinders Island, and Tasmania. The wombat is in the family of marsupials which are animals that hold their babies in their pouch.

The wombat's shoulder/arm/hand is incredibly strong. The wombat has very strong scapulas, powerful arms, and sharp claws. These arms are made for burrowing, so it can build shelter for itself. It has a small body so it can fit inside its burrow. The wombat's claws are big and sharp so it can dig burrows. The legs of a wombat are not powerful, they are not made for running. The wombat walks on the soles of its feet, not its toes like a dog.

The wombat has a wide skull that contains 24, forever growing, rootless teeth. The wombat's teeth get worn down when it eats inner tree bark, and then the teeth re-grow. The wombat has big incisors, (front teeth) no canines, (side teeth) and flat molars (back teeth). It is an herbivore. The big incisors and flat molars help it eat shrub roots, inner tree bark, Australian grasses, and moss. Since it is an herbivore, it moves its jaw from side to side when it chews. The wombat only eats once a week.

Hare, Dr. Tony. Animal Fact File. 2004

Wildlife Explorer. Common Wombat. 1998

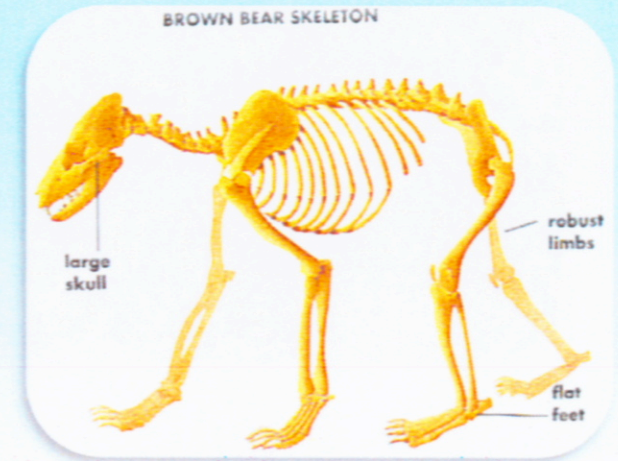


# GRIZZLY BEAR

Grizzly bears are found in North America, Europe, and Asia. Bears live near fresh water so they can eat fish. Grizzly bears live in valleys, wooded hills, and meadows. Bears make their dens in the winter so they can hibernate. Grizzly bears dig their dens under tree roots with their strong claws.

The grizzly bear's legs are strong and they help the bear move fast to catch its prey. The bear's leg bones are thick because the bear is a big animal and it needs support to stand and walk. The front feet are used for grabbing, climbing, and helping it defend itself against its predators. The grizzly bear's claws are curved so that they can grab fish. The grizzly bear's back feet are flat and larger than the front feet and help the bear stand up.

A grizzly bear has a large skull. It has sharp canines and incisors that are bumpy. Bears have flat crowned molars. Grizzly bears are omnivores because they eat meat like chipmunks, ground squirrels, and deer and plants. They have their eye sockets on the front of the skull and that tells they are hunters.



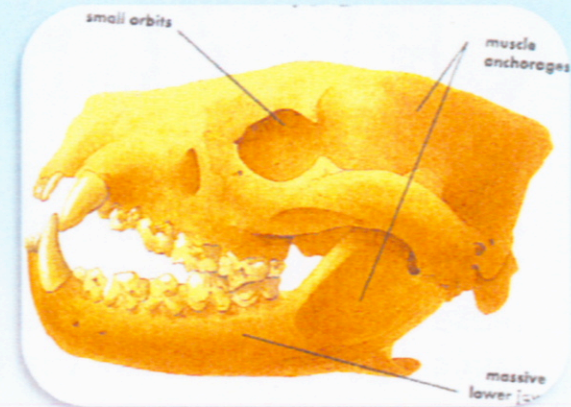
GARY & KEESHA





## TASMANIAN DEVIL

BY IMANI AND JAVON



**What's that loud noise in the rainforest? It's a Tasmanian devil. It lives in Tasmania which is an island south of Australia. It can live in a rain forest but its favorite place is in the dry forest. It makes its home in trees and sleeps during the day because it is nocturnal.**

**The Tasmanian devil's forefeet help it climb, dig, and get food. Each forefoot has five toes, but each hind foot has just four. The claws are short but thick. The curved claws help it hold trees when it climbs. It uses its forepaws to put a dead animal into its mouth when it eats. It has pads on the bottom of its paws for protection so it won't get hurt when it is climbing.**

**The Tasmanian devil is a carnivore which is a meat eater. It has four pairs of upper incisors, three pairs of lower incisors, five pairs of canines on the bottom, and a couple of sharp molars. It uses these teeth to slash, rip, grind, and crush. Its teeth and jaws are strong to help it eat the bones of animals. A Tasmanian devil eats smaller animals like insects, frogs, fish, snakes, rabbits, wombats, wallabies, platypuses, lamb, and sheep. It likes to eat animals that it finds already dead. It only hunts at night and its fur is black so some of its prey can't see it.**

Hare, Dr. Tony. Animal Fact File. 2004

Wildlife Explorer. Tasmanian Devil. 1998





# Moose

by Garhett &  
Michael



Moose live in northern parts of America and Europe, such as Alaska, Canada, Maine, Siberia, Sweden, and Norway. They live in northern forests that have marshes, bogs, and lakes.

The moose has two kinds of strong toe bones. They are the middle toes and the outside toes. Its middle toes are split into hooves and they help it balance and run faster. Its strong feet help it run in snow, water and mud. Its long thick legs help it run and kick its predators away. Its predators are grizzly bears, wolves, and men.

The moose skull has a big gap in the middle of the mouth. The teeth are big and bumpy and flat. It is an herbivore and eats thorny twigs and berries in the summer. The moose has a flap of skin that covers the bottom jaw that lets it pull off thorns from the twigs. In winter, the moose eats tree bark that is softened by melted snow.

The moose has a pair of antlers on its skull. The antlers are made from dead hair and bones. Male moose use their antlers in battles with other males to determine who is stronger during mating season. They shed them off at the end of mating season and grow new ones in the fall. The antlers grow up to 5 feet and the antlers are covered with fur called velvet.

<http://www.mopie.com/0407/img/moose.jpg> November 27, 2007

<http://www.tobinphoto.com/images/photos/alaska-moose.jpg> November 27, 2007





# GIANT PANDA

BY ANGELIA AND CHYHIEM



Do you think that a giant panda is so cute and cuddly that you just want to hug it? A giant panda is a wild animal. The giant panda lives where it is cool, wet, and cloudy in a bamboo jungle. The panda is found in the Gansu or Shaanxi areas in China. It likes thick bushes for shelter. It likes big trees around its shelter so it can climb in them. It also makes hideouts inside caves.

The giant panda's skull is wide, round, and huge compared to its body. The panda's eye sockets are on the side because it likes to look for and hide from predators. The giant panda has extremely sharp canines, small incisors, and medium bumpy molars. People think it's an herbivore because it usually eats bamboo with its molars. It's really an omnivore because it uses its sharp canines to eat any dead animal that it finds. A giant panda will use its teeth to attack any animal that will attack it or its baby.

The giant panda's leg/foot is very big because it supports the panda's big body. The panda walks pigeon toed so it doesn't walk or run very fast. Pigeon toed means that its toes point at each other. You don't want to get too close to a giant panda because its claws are very long and sharp. The long sharp claws let it protect its young from danger.

Hare, Dr. Tony. Animal Fact File. 2004

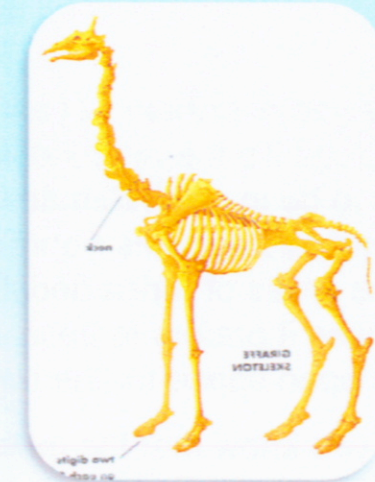
Lantier, Patricia and Feeney, Kathy. The Wonder Of Pandas. 2001





## **GIRAFFE**

by Jahara  
and Isiah



Did you know giraffes are the tallest land animals? Giraffes are found in the heart of Africa, south of the Sahara Desert. Giraffes live on dry, grassy land near the edge of the forests. A giraffe has only 7 vertebrae while humans have 33 vertebrae! In a giraffe's neck, there are huge, thick vertebrae. In between each vertebra, there is a ball and socket joint that creates flexibility so the giraffe can move its neck up and down. A giraffe's neck can be 6 feet tall.

A giraffe is an herbivore. That means that it only eats plants. Instead of incisors in the front, it has slanted canine teeth. It also has bumpy molars. The giraffe rips and punctures the leaves on the top of trees. The baby giraffe eats the leaves on the bottom of trees because they can't eat the top leaves.

Do you know that a giraffe's hoof has 2 big toes called phalanges on each foot? The hooves are narrow and don't spread under the giraffe's weight. The legs can be 6 feet long. Both back legs are short and bent. Both front legs are straight and longer than the back legs. When the giraffe runs, the 2 left legs run together then the 2 right legs run together. They run 2 by 2 by 2! That helps the giraffe run as fast as 35 miles an hour. When a giraffe bends to drink, the front and back legs spread wide apart so the giraffe won't fall.



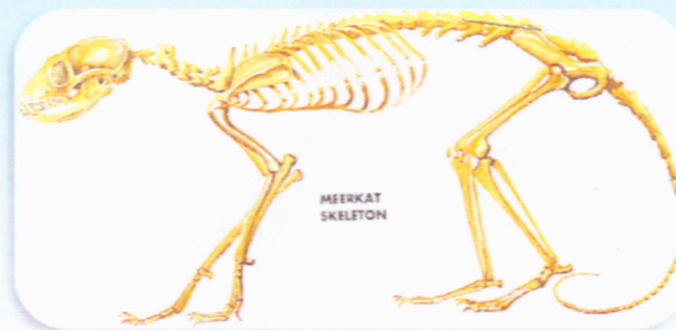
## MEERKAT BY DAVID AND NATALIE

Have you ever heard of an animal that uses its tail as a third leg? It's the meerkat which lives in southern Africa. It likes to be in a hot climate where temperatures can rise to around 129 degrees Fahrenheit. It loves to be in the plains areas of Africa and it avoids the woodlands because it prefers to be in wide open space. It prefers wide open space for the underground home that it makes.

Did you know that the meerkat uses its arms as its legs too? They're called the forepaws and the two back legs are called hind legs. The hind legs are bigger than the forepaws giving the meerkat a head-down position. Each paw has four long claws made for digging. Digging is important because when predators come it uses its claws to dig holes to hide.

The vertebral column of a meerkat is very strong, thin, and flexible. The meerkat's vertebral column helps it to use its tail as a third leg when standing on two legs. The pelvis also lets the meerkat stand up because it is slanted when on four legs and upright when on two. The vertebral column connects to the pelvis to keep the tail in place

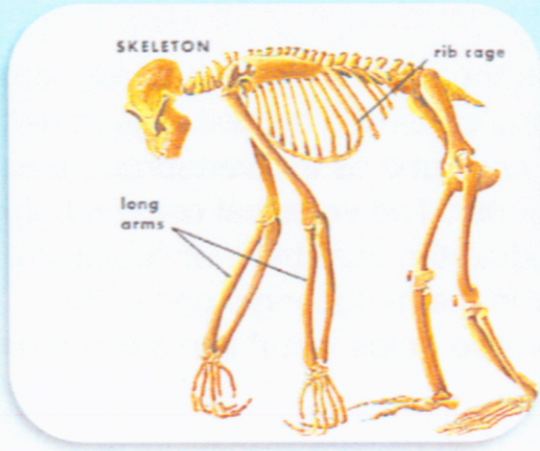
The meerkat is an insectivore which means it eats insects. It's also an omnivore because it eats other little animals like poisonous scorpions, grubs, geckos, and snakes. It is able to eat poisonous things because it is immune to venom. The meerkat also eats some fruits and roots.



Hare, Dr. Tony. Animal Fact File. 2004

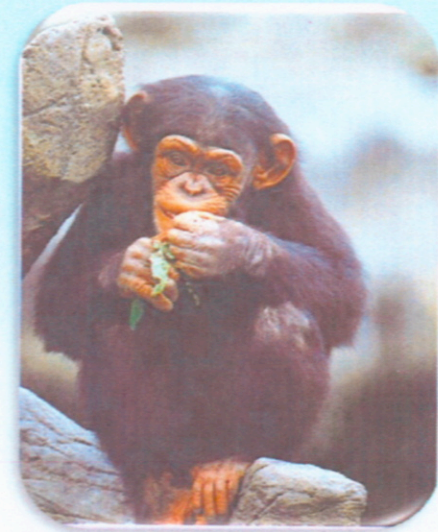
[www.whozoo.org](http://www.whozoo.org) 12/5/07





# Chimpanzee

by Kathy and Simone



A furry, swinging mammal? The chimpanzee! The chimpanzee is an animal that lives in the tropical rain forest, woodlands, and grasslands in Africa. The chimpanzee lives in groups called communities. The chimpanzee makes its own nest up in the trees with branches and leaves. It sleeps up high so its predators can't get it.

The chimpanzee is an omnivore so it has a combination of all teeth like humans. The chimpanzee eats fruits, seeds, nuts, and meat. The chimpanzee's medium size incisors help the chimpanzee eat the fruit. The sharp pointy canines and sharp pointy molars help it eat meat and other hard foods.

The chimpanzee has an opposable thumb. An opposable thumb can allow the chimp to touch its finger tips with the finger tip of the thumb. The opposable thumb allows the chimpanzee to grasp things like food. The opposable thumb helps the chimp get around because when it swings from branch to branch, the opposable thumb lets it get a tight grip on the branch. The chimp also uses the opposable thumb to groom itself.

The chimpanzee's leg/foot is shorter than the shoulder/arm/hand. Since the leg/foot is shorter, it makes the pelvis tilt and the vertebral column curve. Because of this the chimpanzee can't stand completely straight. Since the shoulder/arm/hand is longer, the chimpanzee knuckle-walks. This means that the chimpanzee walks on all fours. A chimp can swing from tree to tree with its flexible arms. Using its strong arms, it can hold its entire body up when it swings. Swinging is important to a chimpanzee because it spends some of the time up in trees digging for termites.

Hare, Dr. Tony. Animal Fact File. 2004

Jacobs, Liza. Wild Wild World Chimpanzees. 2003



## Hedgehog by Kayla and Annabel



Did you know a hedgehog can stay curled up for hours if it needs to? The vertebral column is arched. The vertebrae are thick up near the neck and as the vertebrae go down to the tail, they get thinner. The vertebral column helps it curl into a ball by bending the vertebrae while special muscles pull together in the hedgehog's body. The shortness of the neck also helps it curl into a ball more easily.



A little animal with big teeth?! A hedgehog has large long incisors, sharp bumpy canines and molars that are sharp and bumpy too. It has this combination of teeth because it is an omnivore and insectivore. The incisors help it to chop up the food, molars let it grind its food and the canines help it rip apart its food. It eats insects, snails, frogs, eggs, snakes, lizards, and plants.

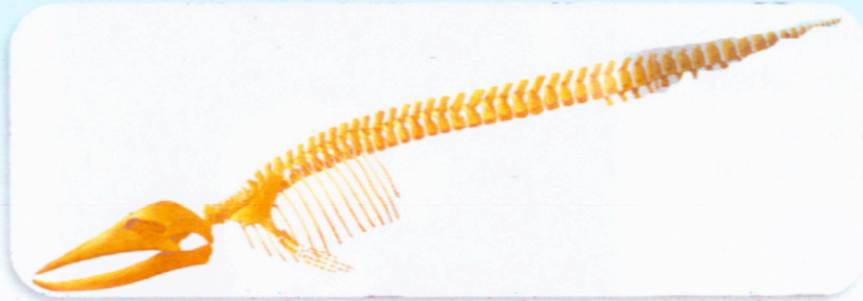
The hedgehog can pounce, walk and crawl about using the help of the leg/foot. The leg/foot lets the hedgehog pounce (or jump) on its prey because the hind legs act as a spring.

The hedgehog wanders to find an already made nest of leaves near a woodpile or under a bush (hedge). At daybreak the hedgehog looks for a nest because it is nocturnal. It sleeps during the day. Hedgehogs are found in Central Europe, parts of Africa, and Central Asia. They were brought to New Zealand by humans.



# Blue Whale

by Anna and Stephanie



A sea creature that breathes air? A whale breathes air through a blow hole. A blow hole is a hole on the top of its skull and it's like a nose. When the blue whale has to breathe, it comes to the surface and shoots out a mist of water into the air. The blue whale's mouth doesn't have teeth like a human mouth. It has string like teeth called baleen. When the whale eats, it sucks up water that has shrimp like creatures called krill in it. The krill gets stuck in the baleen. When the whale spits out the water, the krill stays in the baleen.

The blue whale has a bone group called the shoulder/arm/hand that is the flipper. The flipper is very long and it can have up to eight bones in its phalanges (fingers). The phalanges have many bones to make the flipper long so it can steer the whale in the water.

A whale's tail is part of its vertebral column. The vertebrae of the vertebral column are small at the top, get larger in the middle, and are smaller again in the tail. There's something different about the vertebral column at the top where the neck is. The vertebrae are very close together so the head (skull) can't move or flap in the water.

Blue whales do best in cold seas because that's the best place to find food. They migrate to the Earth's equator to breed or give birth.

Hare, Dr. Tony. Animal Fact File. 2004

[http://www.earthwindow.com/blue\\_whaleM967.html](http://www.earthwindow.com/blue_whaleM967.html) 12/5/07



# KING COBRA BY JOSHUA AND DAYQUAN

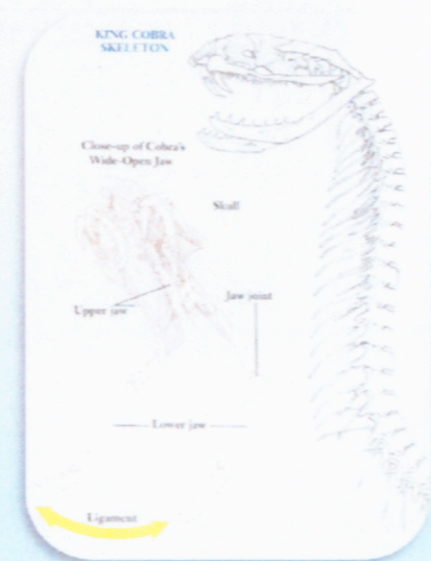
What type of snake has venom so strong it can kill an adult elephant or twenty people with one bite? It is the king cobra which is found on the continents of Asia, Africa, and Australia. The king cobra's habitat is open areas such as grasslands where it will be harder to see the king cobra and easier for the king cobra to catch its prey. The king cobra is a good swimmer and it also lives near streams so it can cool off.

The king cobra's ribcage and vertebral column are very impressive. The king cobra has over 200 pairs of ribs that attach to the vertebral column. When it is scared, its ribcage flattens. This is called the hood. The hood can spread so much that from the back of the king cobra it looks like a wide stretched rubber band. The muscles in the ribcage and the vertebral column allow it to stand up as tall as 6 feet so it can battle with enemies such as a moose or mongoose.

The king cobra's jaw can tear apart and swallow its prey whole. Its prey can be bigger than the king cobra itself because the jaws can come out of their sockets and stretch around its prey. The king cobra's fangs are big. If they grow too big, they can bite through its lower jaw. The king cobra eats other snakes and small animals such as lizards, frogs, birds, and small mammals such as rats and mice.

Presnall, Judith Janda. Animal Skeletons. 1995

[www.hadeer.com](http://www.hadeer.com). 11/19/07

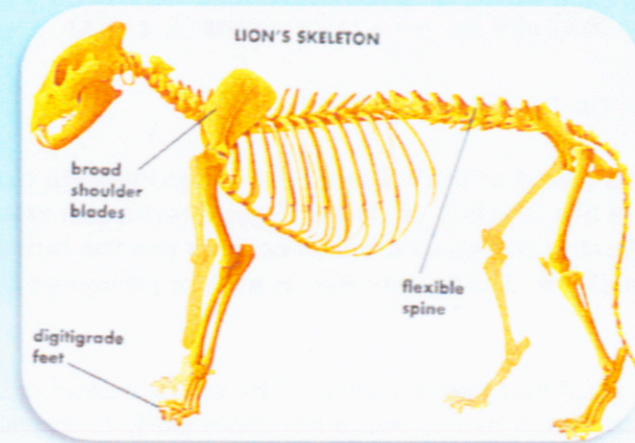






# LIONS

BY  
ASHLEY, QIYAM,  
VERONICA



The KING of beasts is a very fierce animal. Lions live in the grassy plains called the savannah in Africa. The savannah has thorny trees and big rocks and rivers. Lions like to be in the grass to hide and jump out at their prey. Lions climb on rocks to see if any of their prey is coming near.

Claws are part of the lion's hands and feet. A lion uses its razor sharp claws for hunting. A lion uses its claws to rip and puncture and pull down its prey. Its claws are held in place by a strong ligament. When the lion runs, it can pull its claws into its feet so it can run really fast on its toes.

The teeth are part of the big and thick jaw bone which is very powerful. The lion's teeth are very useful. A lion has pointy, long canines and molars that are sharper than the other teeth. The lion uses very sharp canines to cut meat. The small incisors are for chomping mouthfuls of flesh. The lion bites its prey in the neck and the teeth help tear through prey.

The lion's vertebral column is flexible. A flexible spine helps a lion move quickly and easily. Moving quickly helps a lion catch its dinner. The flexible vertebral column helps the lion leap from the ground or creep in the grassland.

Hare, Dr. Tony. Animal Fact File. 2004  
Swett Burt, Barbara. Lions. 1998



# Shark

BY STEPHANNIE & LYUSI

DA DA DA DAN NA SHARK!!!!

Is a shark a friend or foe? Sharks live all around the world. There are dwarf sharks that live in lakes or rivers. Tiger sharks can swim in rivers and oceans. Most of the sharks live in oceans like the bull shark, white shark, and whale shark. Sharks can live in a lot of places so be careful where you swim.

Wow that skull and jaw are huge! The shark's skull can't move sideways or up and down. It has to move its whole body to move its head. The shark is one of the animals that can only move its top jaw. It lets it put its whole mouth on its prey. The shark has teeth that are very sharp. The shark is a meat eater so it is a carnivore. Its teeth fall out every ten days and it grows new teeth. A shark's teeth are not like our teeth because we only lose our teeth once. If we lost our teeth like sharks do, we would have a mouth with no teeth. The whale shark is the only shark that does not have the same type of teeth as other sharks. It has teeth that look like the bottom of a broom. These teeth are really tight together and help suck the food in. Sharks' teeth are used for different things. They use their teeth to defend themselves and sometimes even just to play. All sharks have teeth of different shapes and sizes so that is one way you can tell sharks apart.

A shark has no bones. Every part of its skeleton is made of cartilage. A shark's vertebral column is made of round cartilage that gets smaller as it gets near the tip of the tail. It's made to be very flexible. If a shark's vertebral column was straight like ours, it would have a hard time swimming. A shark needs to move up and down in the ocean. A shark is scared when a dolphin or other animal comes near because the animal can whip its tail and break the shark's cartilage.

A shark can have 5 to 7 fins. Male sharks have an extra fin. Their fins are made out of cartilage. All the shark's fins move to help it navigate. The top fin sticks out and alerts the prey that the shark is coming. A shark loves to chase its food!



<http://www.marinebiodiversity.ca/shark/english/skull.htm> 11/20/2007

[http://www.bite-back.com/downloads/images/wallpaper/shark1\\_1024.jpg](http://www.bite-back.com/downloads/images/wallpaper/shark1_1024.jpg) 11/27/2007



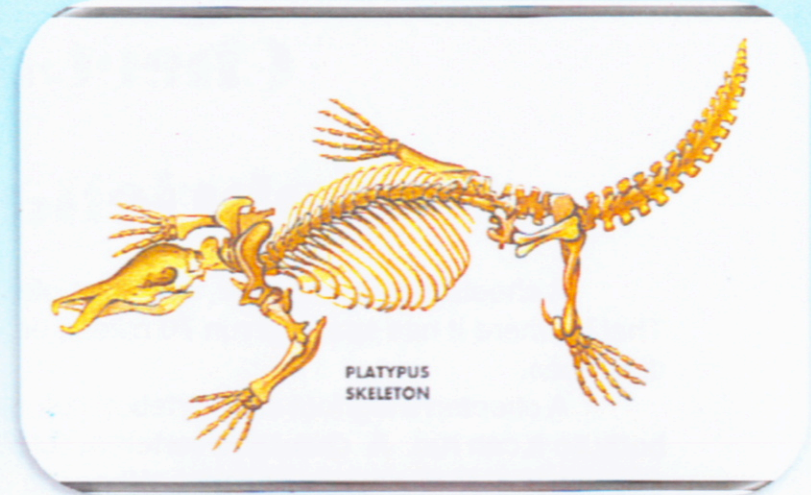
# Duckbill Platypus by Matt and Nate

A mammal that lays eggs? It is called the platypus. It can be found in Eastern Australia. It burrows on the edge of the shore in swamps and lakes where there are lots of rocks. It lives in that area to hunt for its food and protect its young.

The skull of the platypus is very interesting. The platypus does not have teeth. It has rough pads that act like enormous molars that crush, crumble, and grind. Only the babies have teeth. The platypus' bill is similar in shape to a duck's bill. The platypus has electric sensors in the bill so it can hunt for its prey but it hunts without using eyes or ears. The electrical sensors in the skull scan the water for an electrical impulse given off by muscles in the prey.

The pelvis of the platypus is not like other mammals. It is different because of the structure. The platypus' pelvis is just two bones with cartilage that forms an arrow. On each side there is a place where the leg/ foot attaches. The legs of the platypus come out of the side instead of the front of the animal so it can swim. If the legs were in front, it wouldn't be able to swim. It swims by pushing water behind itself. In the leg/ foot there is a bone called the spur. Only the male has these spurs to fight for females during mating season.

The vertebrae of the platypus is different than other animals. The vertebrae are small from the neck to the pelvis and in the tail the vertebrae are big. These big vertebrae are important because they support the tail which helps the platypus swim and steer in water.



Hare, Dr. Tony. Animal Fact File. 2004

<http://www.australian-animals.net/> 12/05/07



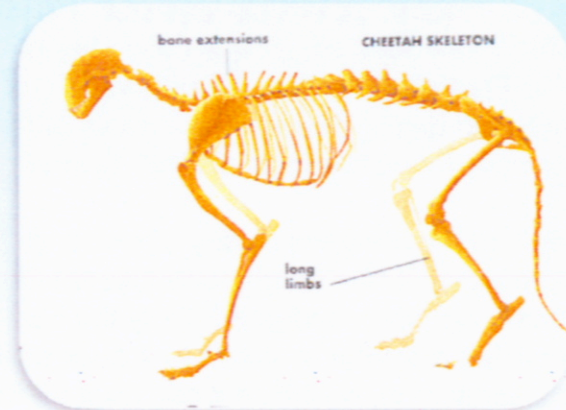
# Cheetah

by Gabriella & Kira

A cheetah lives in the tall, dry, open plains of Asia and Africa. That is where it has space to run 70 miles per hour for only short distances.

A cheetah's leg/foot and vertebral column help to move its body so it can run. A cheetah's vertebral column is flexible so the cheetah is able to pounce or sprint. When the cheetah sprints, its vertebral column is extending and when it pounces, it is bending. The leg helps the cheetah sprint because when it going to take off, its leg acts like a spring pushing the cheetah off the ground. The extra strong leg lets the cheetah go 21 to 23 feet in one step. The cheetah also uses its long powerful legs to trip its prey. The foot of this animal acts like cleats to grip the ground while running, so it won't slip. This mammal walks on its phalanges which means the cheetah walks on its fingers and toes. Its heel is farther up towards the knee cap. Its extra sharp claws help it to rip apart the prey after it kills.

The skull of a cheetah is very important. A cheetah is a carnivore which means it only eats meat. To rip, tear, and puncture its prey such as gazelles, impalas, and small antelopes, it needs extremely sharp teeth. It uses its canines for that job. The canines are the sharp pointy teeth on the side of a cheetah's mouth. The other major teeth in the cheetah's mouth are the molars which are pointy and bumpy to grind, crunch, and crumble up its prey. These two teeth groups help the cheetah take big chunks out of their food. A cheetah either chews those big pieces up or swallows little pieces whole. On the skull, the cheetah's eye sockets are facing front which means it is a hunting predator.



Hare, Dr. Tony. Animal Fact File. 2004

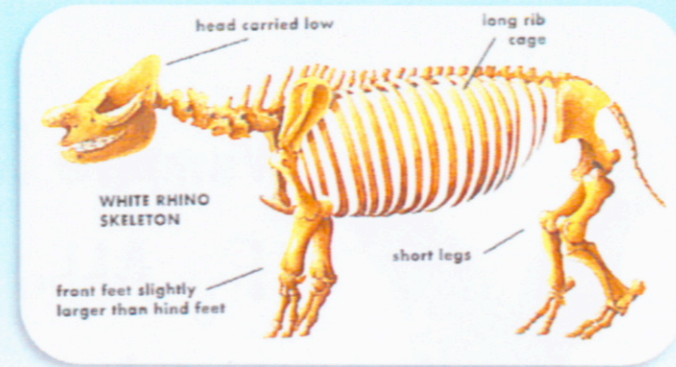
[htrosswarner.com/cheetah.html](http://htrosswarner.com/cheetah.html) 12/05/07tp://





## *White Rhino*

*by Olivia  
and Deliani*



Do you think a white rhinoceros moves slowly? Well if you answered yes, you are wrong. A white rhinoceros can run 35 miles per hour in the dry grasslands of Africa. Rhinos are kind of like pigs. They love to cool off in the mud so they live near small lakes where there's mud. It's refreshing in the hot sun and also protects their skin from the sun.

The white rhinoceros has one of the biggest skulls of the animals in Africa. The neck vertebrae are bigger than the other vertebrae because they need to hold up the weight of the skull. A rhino is an herbivore. Unlike other herbivores, a rhino doesn't have any incisors. It has flat rectangular molars. The molars help it to grind its food. Its upper lip is flat and wide and helps it grab its food. Since the rhino is an herbivore, it eats plants off small bushes and short trees.

The rhino's horn is attached by the boss. The boss is part of the skull on the nose. The horn helps the rhino defend itself by charging into predators such as tigers, lions, or anything with sharp claws or teeth. The rhino is prey for these animals because they want to eat the rhino's babies. They can attack the rhino because its skin is very thin so it is easily scratched.

The white rhino's leg bones are short but thick to support the rhino's weight. Rhinos walk on their phalanges or their toes. The rhino's toes separate into three different hooves to help it run. Under the hooves are pads, so when it slams its foot down while running it won't get hurt. Believe it or not a rhino is related to a horse, so it can run very fast. It can't run for a long period of time because it carries more weight than a horse.





# Vampire Bat

By Abby &  
Orlando



A mammal that flies? The vampire bat is found in Central and South America in warm tropical and subtropical regions. It lives in dark places such as caves, hollow trees, old wells, and mine shafts. It may even be found in someone's yard or in a forest in dry or wet areas.

The skull of the vampire bat is light and small for easy flying. The vampire bat only drinks blood. With its razor sharp incisors, it slices its prey's skin open at a warm spot and starts lapping the blood. Its saliva goes down the grooves of its tongue and stops the blood from clotting.

The shoulders/arms/hands of the vampire bat are the wings. The amazing thing about their wings is that they have long, thin phalanges that support it in flight. The shape of their hands are spread out to support the wings. The bones in the wings and the rest of the body are light. This helps them fly easily. The scapula and clavicle are large to secure the strong muscles that move the wings so this animal can fly.

A bat's wing is connected to its leg/foot. The vampire bat's hind legs rise when it needs to travel on its prey or on the ground. It either runs, hops, or walks when not flying. The sharp thumbs support the vampire bat when it scurries around. It has specially clawed feet for hanging upside down on the ceiling of its shelter when roosting.



# Manatee

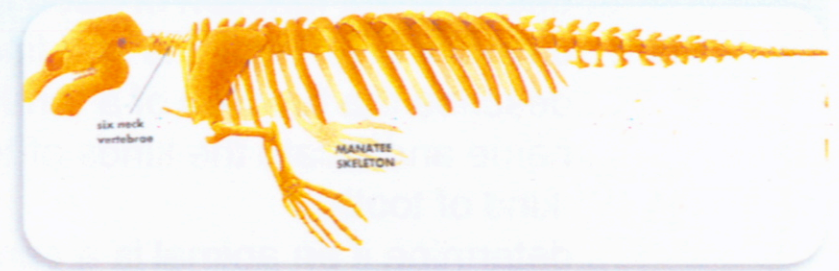
By: Bryanna and Ny'Asia

Long ago, a land creature known as the manatee adapted to the water. The manatee lives in places where temperatures are over 70 degrees. The manatee lives in water off the coast of Florida, in the Gulf of Mexico, north of South America, in the Amazon River in South America, and west of Africa. In the manatee's home, there is a little cave called a backwater where the manatee can give birth to its children.

Even though the manatee's bones are very heavy, it can still float because the manatee's lungs produce gas that makes it rise. The bones push down while the gas rises up so the manatee can stay level.

The bones in the manatee's hands are formed somewhat like the human's hand because when the manatee was on land it had fingers. The manatee's shoulder/arm/hand is used for more than swimming. Like humans, the manatee uses its hands to hold and eat its food. But over the years, the manatee's hand formed into a flipper to adapt to water life.

The manatee is an herbivore so it doesn't need any incisors or canines. The manatee has large, rough pads in the place of the incisors and canines. The manatee uses the rough pads to grind its food into smaller pieces to swallow the sea grass. The rough pads and the flat molars work just as good as the canines do for a carnivore. The manatee's nostrils have tight seals so none of the water gets in the manatee's nose. The manatee also has incredibly small ears but the strange thing is that it hears just as well as the human.





Students in grade 5 participated in a learning expedition developed from the **Bones and Skeletons** science unit. The following learning targets were developed.

**I can...**

- ... sort bones of the human skeleton according to their physical properties.
- ... name and locate the six major bone groups of the human skeleton.
- ... describe the function of each major bone group.
- ... describe what a joint is and find examples in the human skeleton.
- ... describe the function of a tendon, ligament, and muscle.
- ... name and locate the kinds of teeth in a human jaw and describe the function of each kind of tooth.
- ... determine if an animal is a carnivore, herbivore, or omnivore by investigating its teeth.
- ... describe how an animal has adapted to its habitat by investigating the structure of its skeleton.
- ... use a variety of resources to complete research including print and Internet sources.
- ... scan an image for use in a final product, citing its source.
- ... word process information in paragraph form using font change and spell checking features.
- ... copy and paste information from a word processing program into a presentation program.
- ... read many sources of non-fiction text related to a topic.
- ... determine important facts from non-fiction text related to a topic and write these facts in my own words.
- ... write a paragraph with a main idea and supporting details.



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The following students participated in the Grade 5 science learning expedition:

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**CONGRATULATIONS TO THE  
STUDENTS ON THEIR HARD WORK!!!**

